

Work Order ID 162101

Thursday, May 25, 2017 12:42:10 PM

Ship June 14!
162101

Page 1

Item ID: D058-677-012 Accept *N9000040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Heli-Access-Step™ RH - High Gear OH-58
 Start Date: 5/25/2017 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 6/15/2017 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: *U* Date: Tooling: Date: Run Start *NR1*
 QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2943	RevC								

100 Document Control 0.00
 100
 DC Memo 0.00
 Doc.Control -USB or Paperwork Photocopy bluefile & type labels per PPPD058-677-012 CHG 002

DAS
28
9-89

JUN 09 2017

110 Weld per dwg A/R Aluminum rod Batch: *131562* 0.00

110
 Large Fab Memo 0.00
 Large Fab 1-Cut D2943-1 from D2622 extrusion as per Dwg D2943
 2-Deburr and bevel ends for welding
 3-Weld end cap(1) and mounting plates as per Dwg D2943
 A/R AL ROD Batch: *131562*
 4-Grind end cap welds flush as per dwg D2943

1x DC 2017-05-29
BE/

1 JUN 01 2017 *DAS*
24
9-89

162101

Page 2

N900040100

Setup Start *NS1*

Stop *NS2*

Stop *NS2*

Start Date: 5/25/2017 **Start Qty:** 1.00 ***1***

Cust Item ID:

Required Date: 6/15/2017 **Req'd Qty:** 1.00 *** 1 ***

Customer:

Reference:

Run Start *NR1*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Stop *NR2*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

120	QC9- Inspect visual per OSI004- Fusion Welds	0.00
-----	--	------

120

QC	Memo	0.00
----	------	------

Quality Control

⑦ 11.05-01 PD

130	QC5- Inspect part completeness to step on W/O	0.00
-----	---	------

130

QC	Memo	0.00
----	------	------

Quality Control

17.06.01 AD

140	Chemical Conversion Coat per OSI005 4.1	0.00
-----	---	------

140

HandFinish	Memo	0.29
------------	------	------

Hand Finishing

X1 ✓ 2012/06/01
BEB

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Item ID: D058-677-012

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Heli-Access-Step™ RH - High Gear OH-58

Start Date: 5/25/2017 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 6/15/2017 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	QC5- Inspect part completeness to step on W/O	0.00				1			DAS 38 9-89 JUN 02 2017
180									
QC	Memo	0.00							
Quality Control									
190	Pressure Wash per QSI005 4.3	0.00							
190									
HandFinish	Memo	0.16							
Hand Finishing	1-Pressure wash as per QSI 005 2-Touch up Chemical Conversion Coat as per QSI 005 4.1								201706/06 BEB
200	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
200									
Powdercoat	Memo	0.39							
Powder Coating									

START: 2:00
OV. T: 320°
FINISH: 2:30

1 0 17-06-6 34 9-89

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Item ID: D058-677-012 Accept ***N900040100*** Setup Start ***NS1***
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Item Name: Heli-Access-Step™ RH - High Gear OH-58
Start Date: 5/25/2017 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 6/15/2017 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210 *210* HandFinish Hand Finishing	Wing Walk as per dwg QSI005 4.4 Batch <u>M137465</u> Memo	0.00 0.44				<u>(X/RT)</u>	<u>12</u>	<u>06/09</u>	
220 *220* QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00				<u>1RH</u>	<u>1</u>	<u>17/06/09</u>	<u>DAS 15 9:29</u>
230 *230* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00				<u>①</u>	<u>17-06-09</u>	<u>17</u>	

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N900040100

Setup Start *NS1*

Stop *NS2*

Stop *NS2*

Cust Item ID:

Customer:

Run Start *NR1*

Stop *NR2*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

240

Pick Kit

0.00

240

Packaging

Memo

0.00

Packaging

JUN 05 2017

DAS
6
8-88

DAS
27
9-89

241

QC4- 100% Inspect kits for completeness

0.00

241

QC

Memo

0.00

Quality Control

DAS
28
9 89

JUN 09 2017

250

Identify as per dwg & Stock Location: 11 0.00

0.00

250

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D058-677-012
Location:FG038

**DAS
28
9-89**

DAS
27
9-89

~~JUN 8 9 2017~~

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Item ID: D058-677-012 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Heli-Access-Step™ RH - High Gear OH-58
Start Date: 5/25/2017 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 6/15/2017 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
260	QC21- Final Inspection - Work Order Release	0.00					DAS 21 9-89		
260									
QC	Memo	0.00							
Quality Control									

JUN 12 2017

DAS
21
9-89~~JUN 8 2017~~
JUN 12 2017

Picklist Print

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Work Order ID: 162101

162101

Parent Item: D058-677-012

D058-677-012

Parent Item Name: Heli-Access-Step™ RH - High Gear OH-58

Start Date: 5/25/2017

Required Date: 6/15/2017

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:B01.04.11 Combined with D2943-041EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2622-120C

Manufactured

No

110

Each

98.5000

1

1

D2622-120C

Step Extrusion

**

2017-05-29

Location

Loc Qty

Loc Code

WA003

98.5

B157441 →

1

152316

18.5

157441

80

D2734

Manufactured

No

110

Each

31.0000

2

2

D2734

Step End Plate

**

JUN 1 0 2017

DAS
24
9-89

Location

Loc Qty

Loc Code

WA003

31

156811

11

159746

20

D3458-1

Manufactured

No

110

Each

39.0000

2

2

D3458-1

Step Mounting Plate

**

BE1705-30

Location

Loc Qty

Loc Code

WA003

39

159573

39

D3458-3

Manufactured

No

110

Each

40.0000

2

2

D3458-3

Step Mounting Plate

**

BE1705-30

Location

Loc Qty

Loc Code

WA003

40

159574

40

Picklist Print

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Work Order ID: 162101

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Parent Item: D058-677-012

D058-677-012

Parent Item Name: Heli-Access-Step™ RH - High Gear OH-58

Start Date: 5/25/2017

Required Date: 6/15/2017

Start Qty: 1.00

Required Qty: 1.00

D2731-3 Manufactured No

240 Each

27.0000

2 2

D2731-3

Mounting Lug

**

DAS

DAS

6

27

JUN 05 2017 9-89

Location

Loc Qty

Loc Code

ST520

27

140246

27

D3394-041

Manufactured No

240 Each

47.0000

2 2

D3394-041

Lug

**

JUN 05 2017

DAS

DAS

6

27

Location

Loc Qty

Loc Code

ST528

47

138051

7

147584

40

D2731-7

Manufactured No

240 Each

42.0000

2 2

D2731-7

Mounting Lug

**

JUN 05 2017

DAS

DAS

6

27

Location

Loc Qty

Loc Code

ST520

42

155044

18

158461

24

Picklist Print

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Parent Item: D058-677-012

D058-677-012

Parent Item Name: Heli-Access-Step™ RH - High Gear OH-58

Start Date: 5/25/2017

Required Date: 6/15/2017

Start Qty: 1.00

Required Qty: 1.00

AN4-14A Purchased No 240 Each 440.0000 8 8

AN4-14A

Bolt

**

JUN 05 2017

DAS 27 9-89

DAS 28 9-89

Location	Loc Qty	Loc Code
FG	5	
122141	5	
over003	200	
M136554	0	
M137495	100	
M137544	100	
ST344	235	
M137371	235	

D3394-043 Manufactured No 240 Each 30.0000 2 2

D3394-043

Lug

**

JUN 05 2017

DAS 27 9-89

DAS 28 9-89

Location	Loc Qty	Loc Code
ST528	30	
138239	6	
140957	24	

NAS1149D0463J Purchased No 240 Each 3,994.000 12 12

NAS1149D0463.J

Washer

**

JUN 05 2017

DAS 27 9-89

DAS 28 9-89

Location	Loc Qty	Loc Code
GA	44	
M135056	44	
ST260a	3000	
M137371	2000	
M137544	1000	
ST263	950	
M137381	950	

Picklist Print

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Work Order ID: 162101

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Parent Item: D058-677-012

D058-677-012

Parent Item Name: Heli-Access-Step™ RH - High Gear OH-58

Start Date: 5/25/2017

Required Date: 6/15/2017

Start Qty: 1.00

Required Qty: 1.00

MS21042L4

Purchased

No

240

Each

2,906.000

12

12

MS21042L4

Nut

**

JUN 05 2017

DAS 6 27
9-89 9-89

DAS 28
9-89

Location

Loc Qty

Loc Code

FP001

10

m133363

10

GA

64

m135058

64

OVER007

1400

m137402

400

m137544

1000

ST303

1432

m137321

432

m137371

1000

12

DAS 6
9-89

DAS 27
9-89

AN4-15A

Purchased

No

240

Each

218.0000

4

4

AN4-15A

Bolt

**

JUN 05 2017

DAS 28
9-89

Location

Loc Qty

Loc Code

GA

10

120449

10

over003

100

m137587

100

ST343

108

m137280

108

4

Picklist Print

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Work Order ID: 162101

162101

Parent Item: D058-677-012

D058-677-012

Parent Item Name: Heli-Access-Step™ RH - High Gear OH-58

Start Date: 5/25/2017

Required Date: 6/15/2017

Start Qty: 1.00

Required Qty: 1.00

D2732-030

Manufactured No

240

Each

101.0000

8

8

D2732-030

Rubber Cushion - 3"

**

161656

Location

Loc Qty

Loc Code

FG

1

150011

1

ST410

100

158347

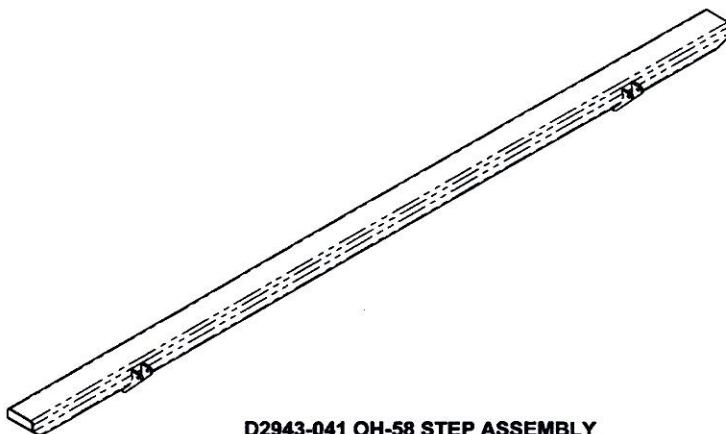
100

JUN 05 2017

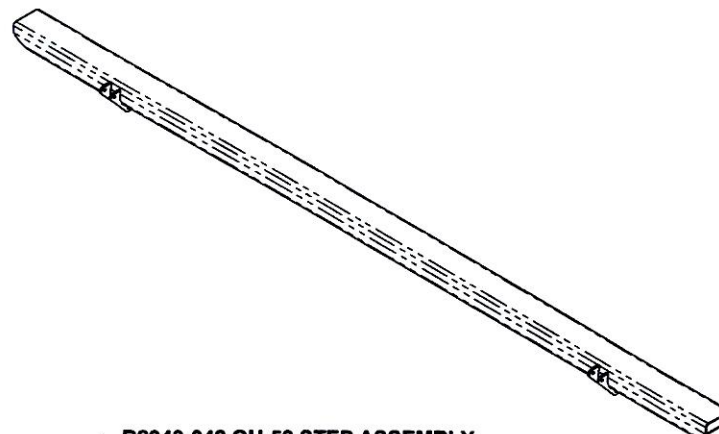
DA
2
9-89

DAS
6
9-89
DAS
27
9-89

ITEM No.	QTY. -041	QTY. -042	PART NUMBER	DESCRIPTION
1	X		D2943-041	OH-58 STEP ASSEMBLY, LH
2		X	D2943-042	OH-58 STEP ASSEMBLY, RH
7	1	1	D2943-1	STEP
11	2	2	D2734	END PLATE
12	2	2	D3458-1	STEP MOUNTING PLATE
13	2	2	D3458-3	STEP MOUNTING PLATE



D2943-041 OH-58 STEP ASSEMBLY



D2943-042 OH-58 STEP ASSEMBLY

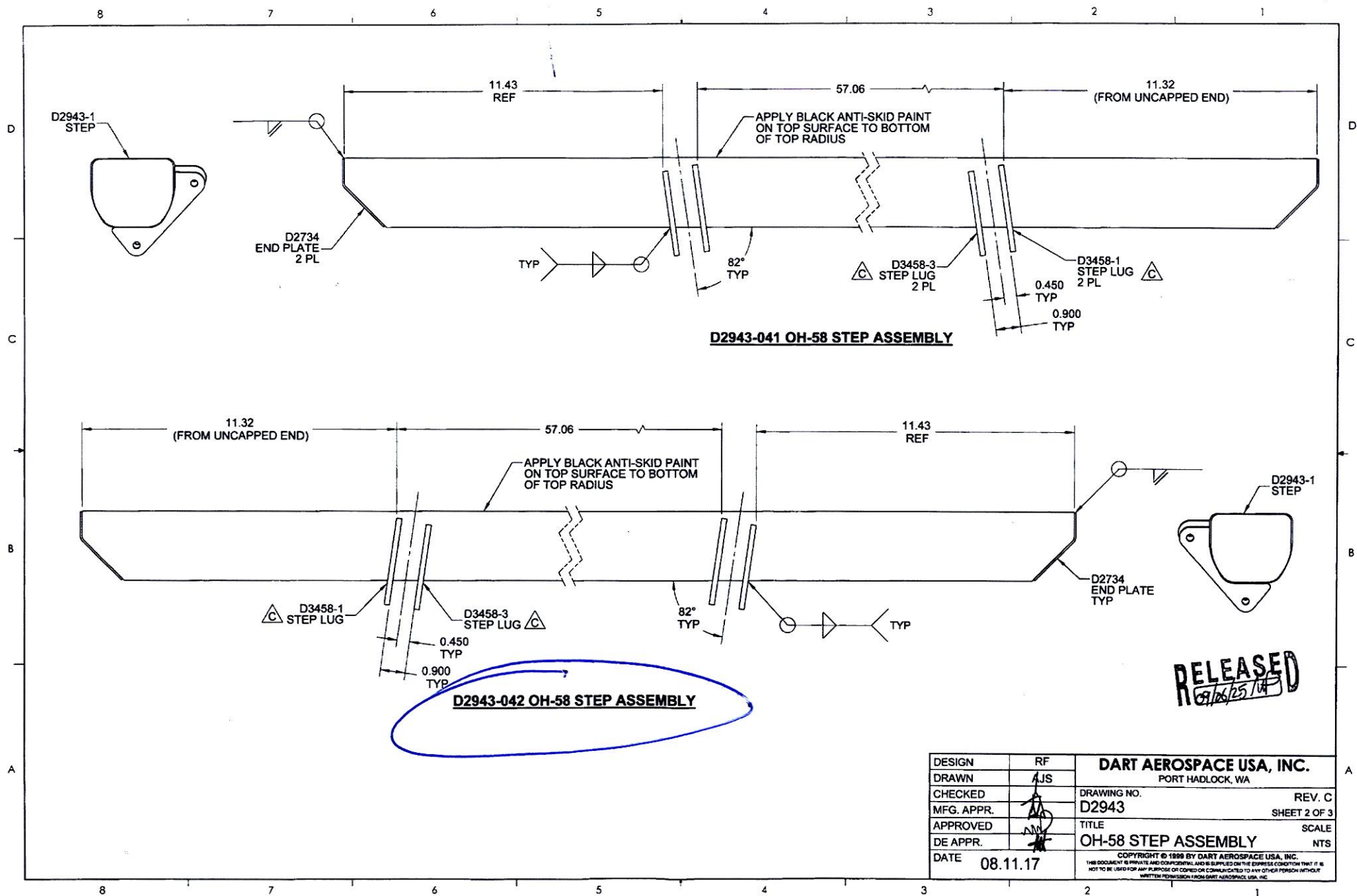
D2943-041/-042 NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 6.31 lbs
- 8) WELD PER QSI 004

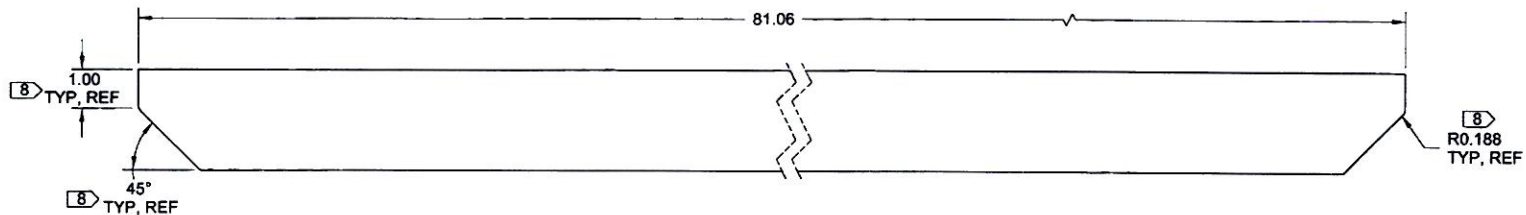
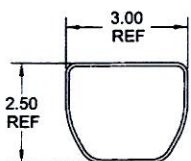
162101

RELEASED
09/06/25/11/10

C	REDRAWN IN SOLIDWORKS TO CURRENT DESIGN STANDARDS. ATTACHMENT CHANGED FROM SINGLE LUG TO DOUBLE LUG. D2725 REPLACED BY ITEMS 12 & 13. REASON: SEE PAR 152. ADDED ITEM 7. D2622-082 MOVED FROM P/L TO NOTES ON SHEET 3.	AJS	08.11.17
B	UPDATED FINISHING NOTE	PH	05.11.14
A	NEW ISSUE	RF	99.11.19
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE USA, INC.	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D2943	SHEET 1 OF 3
APPROVED		TITLE	SCALE
DE APPR.		OH-58 STEP ASSEMBLY	NTS
DATE	08.11.17	COPYRIGHT © 1999 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMBINED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	



DESIGN	RF	DART AEROSPACE USA, INC.	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D2943	SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.		OH-58 STEP ASSEMBLY	NTS
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D2943-1 STEP $\triangle C$

RELEASED
01/06/25 MP

D2943-1 NOTES:

- 1) MATERIAL: MAKE FROM D2622-082 EXTRUSION $\triangle C$
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 5.93 lbs
- 8) SHAPE TO FIT D2734 END CAP

DESIGN	RF	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
DRAWN	AJS		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. C
MFG. APPR.	<i>[Signature]</i>	D2943	SHEET 3 OF 3
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	OH-58 STEP ASSEMBLY	NTS
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4.0 PARTS LIST:

Qty -011	Qty -012	Qty -013	Qty -014	Part Number	Description
X				D058-677-011	HELI-ACCESS-STEP™, LH
	X			D058-677-012	HELI-ACCESS-STEP™, RH
		X		D058-677-013	HELI-ACCESS-STEP™, LH
			X	D058-677-014	HELI-ACCESS-STEP™, RH
1		1		D2943-041	STEP ASSEMBLY LH
	1		1	D2943-042	STEP ASSEMBLY RH
		2	2	D3394-045	MOUNTING LUG (REPLACES D2230-1)
		2	2	D2230-3	MOUNTING LUG
2	2			D3394-041	MOUNTING LUG (REPLACES D2731-1)
2	2			D2731-3	MOUNTING LUG
2	2	2	2	D3394-043	MOUNTING LUG (REPLACES D2731-5)
2	2	2	2	D2731-7	MOUNTING LUG
8	8	8	8	D2732-030	RUBBER CUSHION
8	8	4	4	AN4-14A	BOLT
4	4	4	4	AN4-15A	BOLT
		4	4	AN4-16A	BOLT
12	12	12	12	AN960JD416	WASHER
12	12	12	12	MS21042L4	NUT (OR MS21042-4)

5.0 WEIGHT AND BALANCE:

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D058-677-011/-013 HELI-ACCESS-STEP™, LH	8.15 lb 3.70 Kg	-36.5 in -0.93 m	-297.5 in-lb -3.30 m-kG	100.44 in 2.55 m	818.6 in-lb 9.44 m-kG
D058-677-012/-014 HELI-ACCESS-STEP™, RH	8.15 lb 3.70 Kg	+36.5 in +0.93 m	+297.5 in-lb +3.30 m-kG	100.44 in 2.55 m	818.6 in-lb 9.44 m-kG